

AD-A264 169



(2)

NAVAL WAR COLLEGE  
Newport, R.I.

TACTICAL VICTORY LEADING TO STRATEGIC DEFEAT:  
HISTORIC EXAMPLES OF HIDDEN FAILURES IN OPERATIONAL ART

by

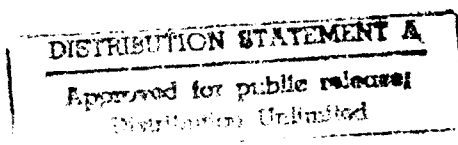
Gordan Evans Van Hook  
Lieutenant Commander, United States Navy

A paper submitted to the faculty of the Naval War College in partial satisfaction of the requirements of the Department of Operations.

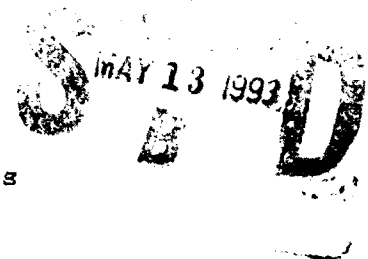
The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

Signature: GE Van Hook

22 June 1993



Paper directed by  
Captain H. Ward Clark, Jr., USN  
Chairman, Department of Operations



93-10363



93 5 11 12 9

## REPORT DOCUMENTATION PAGE

1a REPORT SECURITY CLASSIFICATION <b>UNCLASSIFIED</b>		1b RESTRICTIVE MARKINGS	
2a SECURITY CLASSIFICATION AUTHORITY		3 DISTRIBUTION/AVAILABILITY OF REPORT DISTRIBUTION STATEMENT A; APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.	
2b DECLASSIFICATION/DOWNGRADING SCHEDULE		4 PERFORMING ORGANIZATION REPORT NUMBER(S)	
5 MONITORING ORGANIZATION REPORT NUMBER(S)		6a NAME OF PERFORMING ORGANIZATION OPERATIONS DEPARTMENT	
6b OFFICE SYMBOL (if applicable) C		7a NAME OF MONITORING ORGANIZATION	
6c ADDRESS (City, State, and ZIP Code) NAVAL WAR COLLEGE NEWPORT, R.I. 02841		7b ADDRESS (City, State, and ZIP Code)	
8a NAME OF FUNDING/SPONSORING ORGANIZATION		8b OFFICE SYMBOL (if applicable)	
9 PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER		8c ADDRESS (City, State, and ZIP Code)	
10 SOURCE OF FUNDING NUMBERS		11 TITLE (Include Security Classification) TACTICAL VICTORY LEADING TO STRATEGIC DEFEAT: HISTORIC EXAMPLES OF HIDDEN FAILURES IN OPERATIONAL ART (U)	
PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.
12 PERSONAL AUTHOR(S) LCDR Gordon Evans Van Hook, USN			
13a TYPE OF REPORT FINAL	13b TIME COVERED FROM TO	14 DATE OF REPORT (Year, Month, Day) 22 Feb 1993	15 PAGE COUNT 56
16 SUPPLEMENTARY NOTATION A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Operations. The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.			
17 COSATI CODES		18 SUBJECT TERMS (Continue on reverse if necessary and identify by block number)	
FIELD	GROUP	SUB-GROUP	
		Tactical Victory; Strategic Defeat; Operational Art	
19 ABSTRACT (Continue on reverse if necessary and identify by block number)  Tactical victories that ultimately lead to strategic defeat can provide explicit examples of the importance of operational art in linking tactical actions to strategic goals. by studying their causes, the fundamental principles involved and their applicability to today's military planner and commander can be presented. an analysis of five possible causes of tactical victory and strategic defeat is presented with two historic examples each for illustration. The dangers of tactical victories are discussed with reference to their possible affect on the psychology of troops, the commander, and national leaders. The military commander, thoroughly schooled in the principles of operational art, must provide the critical link in the rational evaluation of the ultimate effectiveness of a victory.			
20 DISTRIBUTION/AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS		21 ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED	
22a NAME OF RESPONSIBLE INDIVIDUAL CHAIRMAN, OPERATIONS DEPARTMENT		22b TELEPHONE (Include Area Code) 841-3414	22c OFFICE SYMBOL C

Abstract of  
TACTICAL VICTORY LEADING TO STRATEGIC DEFEAT:  
HISTORIC EXAMPLES OF HIDDEN FAILURES IN OPERATIONAL ART

Tactical victories that ultimately lead to strategic defeat can provide explicit examples of the importance of operational art in linking tactical actions to strategic goals. By studying their causes, the fundamental principles involved and their applicability to today's military planner and commander can be presented. An analysis of five possible causes of tactical victory and strategic defeat is presented with two historic examples each for illustration. The dangers of tactical victories are discussed with reference to their possible affect on the psychology of troops, the commander, and national leaders. The military commander, thoroughly schooled in the principles of operational art, must provide the critical link in the rational evaluation of the ultimate effectiveness of a victory.

DTIC QUALITY INSPECTED 1

Accession For	
NTIS	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution	
Availability Codes	
Dist	Avail and/or Special
A-1	

## TABLE OF CONTENTS

CHAPTER	PAGE
I INTRODUCTION . . . . .	1
Background . . . . .	1
The Thesis . . . . .	1
The Terms . . . . .	2
1. Strategic, Operational, and Tactical Levels of War . . . . .	2
2. Center of Gravity . . . . .	3
3. Culminating Points . . . . .	4
4. Coordination, Integration, Synchronization . . . . .	4
5. Operational Reserve . . . . .	5
6. Operational Sustainment . . . . .	5
II THE CAUSES . . . . .	7
A. Misreading the Center of Gravity - In Search of the Decisive Point. . . . .	7
1. Hannibal in Italy, 216-201 BC . . . . .	8
2. The US in Vietnam, 1965 - 1973 . . . . .	10
B. Past the Culminating Point - Victory Fever. . . . .	15
1. The Japanese in the Pacific, 1942 . . . . .	15
2. The United States in Korea, 1950 . . . . .	18
C. A Matter of Timing - Failures in Coordination, Integration and Synchronization. . . . .	22
1. The Eastern Front, 1916 . . . . .	23
2. Operation Market Garden, 1944 . . . . .	26
D. No Knock-out Punch - The Lack of an Adequate Operational Reserve. . . . .	29
1. Antietam, 1862 . . . . .	30
2. The German Offensives of 1918 . . . . .	32
E. Logistics - The Key to Operational Sustainment . . . . .	35
1. Napoleon in Russia, 1812 . . . . .	35
2. Rommel in North Africa, 1941-42 . . . . .	38
III CONCLUSION: LESSONS FOR TODAY'S OPERATIONAL COMMANDER . . . . .	42
NOTES . . . . .	44
BIBLIOGRAPHY . . . . .	51

TACTICAL VICTORY LEADING TO STRATEGIC DEFEAT:  
HISTORIC EXAMPLES OF HIDDEN FAILURES IN OPERATIONAL ART

CHAPTER I

INTRODUCTION

Background. Eerie silence enveloped the battlefield. Only hours before, the air was filled with shouted orders, blaring trumpets, the clash of steel on steel, and the screams of mortal combat; now, a silent desolation. The standards of twelve Roman legions, and the lifeless bodies of a consul, and 60,000 men, lay in the blood and dust of a plain whose name, for over twenty-two centuries, would be synonymous with total victory. Cannae, the very mention of the great battle sent men like von Schlieffen's general staff poring over their maps to duplicate the epitome of a successful battle of annihilation. Indeed, the terror and completeness of the victory struck awe and admiration in generations of military men that time only burnishes rather than erodes. But what became of the great victor of this classic example that generations strove to emulate? The great Carthaginian died defeated and in exile, his country conquered, humiliated, and eventually erased from the ancient world. How could Hannibal have won such a spectacular victory and roamed with his army unmolested throughout Italy for over 13 years, only to ultimately fail in achieving his strategic goals? To win the battle, but lose the war, presents the bitterest of ironies that have fascinated military students throughout the ages; and yet, can still provide illuminating lessons in the most critical foundations of operational art.

The Thesis. History is replete with examples of strategic defeats masked in tactical victory. Ultimately, these strategic defeats are often reflections of failures in the practice of operational art. Though the

strategic goal or objective may be entirely feasible and attainable with the forces and resources available, the correct sequence of tactical actions must be properly timed, directed, and supported. Tactical actions that are successful yet improperly linked or sequenced; not aimed at the enemy's true center of gravity; or ignore culminating points, operational reserves and sustainment, are the most insidious failures of operational art. The military student can easily become enamored with the beauty of a tactical victory, but if it fails in attaining its strategic goal, then the reality of defeat must be recognized in the forsaken principles of successful operations. This paper will use historic examples of tactical victories that ultimately lead to strategic defeat to illustrate the importance of the principles involved in successfully linking the correct tactical means to the strategic ends within the operational level of war.

The Terms. Before proceeding with the discussion's historic examples, the most important terms, principles, and themes to be used will be defined.

1. Strategic, Operational, and Tactical Levels of War - These are the broad divisions of activity in preparing for and conducting war. Military strategy is the art and science of employing a nation's or alliance's armed forces to achieve policy objectives by the use or threat of force. As derived from policy, it is the sole authority for the next level - operations. The operational level is the level of employment of military forces to attain strategic goals within a theater of war or a theater of operations.<sup>1</sup> Considerable debate has surrounded this definition when attempting to delineate the exact boundaries between the operational level and the strategic and tactical levels.<sup>2</sup> This paper will refer to the

design, organization, and conduct of campaigns and major operations within the operational level of war as the practice of operational art.<sup>3</sup> At the next level, tactics is the art by which available combat power is translated into victorious battles or engagements.<sup>4</sup> Simply put, tactics are those skills that win specific battles, while operational art is the skill to link a series of these battles in a manner to achieve strategic goals and objectives.

2. Center of Gravity - Clausewitz first coined this term in his seminal work On War, in which he refers to 'the hub of all power and movement, on which everything depends. That is the point which all our energies should be directed.'<sup>5</sup> In reference to a theater of operations, he states that 'a center of gravity is always found where the mass is concentrated most densely. It presents the most effective target for a blow; furthermore, the heaviest blow is that struck by the center of gravity.'<sup>6</sup> Much confusion has arisen as to how this principle should be applied in the study of operational art. Most military theorists believe that operations should be directed toward an enemy's center of gravity to achieve strategic goals. The confusion usually arises in defining this center of gravity. It is not the weakest point, the Achilles Heel, that if struck will bring about the enemy's collapse.<sup>7</sup> Rather, it is the concentration of combat power, which is the enemy's strength. If struck where it is vulnerable, then it may well bring about the desired defeat when it collapses. At the strategic level it may be the capital city, a natural resource, a nation's will, or an alliance. Operations must be planned and directed toward defeat of the strategic center of gravity;<sup>8</sup> but within the operational level, opposing armies have their own centers of gravity, as will individual tactical

formations.<sup>9</sup> This concept does not dictate frontal assaults against the enemy's strongest point; it may be approached indirectly as preferred by Liddel Hart, but it must be defeated nonetheless.<sup>10</sup>

3. Culminating Points - In operational theory, the culminating point is that point at which the attacker's strength in an offensive no longer significantly exceeds the defender's; and, therefore, a continued offensive risks overextension and vulnerability to counterattack and defeat.<sup>11</sup> Clausewitz first conveyed the culminating point as that point beyond which 'the scale turns and the reaction follows with a force that is usually much stronger than that of the original attack'. He goes on to state that this point must be detected 'with discriminative judgement'.<sup>12</sup> This emphasizes what must be the central focus of the operational commander in an offensive - to realize when the offensive must end to remain strong enough to withstand counterattack. The art of attack at all levels is to achieve objectives before the culminating point is reached, while the art of defense is to hasten culmination of the enemy's offensive, and be prepared to switch to the counteroffensive.<sup>13</sup> Operational offensives reach the culminating point for reasons often tied to a shortage of logistic resources, or a failure to retain sufficient operational reserve.

4. Coordination, Integration, Synchronization - These are the central tenets of successful operations because they focus on the requirement to successfully link a series of tactical actions to attain strategic goals. Clausewitz described the requirement to coordinate the results of tactical actions with others to attain the objectives of war.<sup>14</sup> Integration refers to the full employment of all forces and resources available, maximizing each capability, to achieve the objective at the lowest cost.



Synchronization refers to timing, not only for separate operations or tactical actions, but also in the application of forces within a specific action. Separate engagements must be coordinated and synchronized when employed concurrently to take maximum advantage of an enemy's vulnerability.<sup>15</sup> In the same vein, sequential actions must be synchronized to allow branches and sequels to fully develop according to plans. In all cases, separate engagements within operations, and the tactical actions within engagements, must be linked together to achieve the strategic goal. Uncoordinated tactical victories, if disparate and gapped, allow the enemy time to regroup and concentrate to meet each subsequent action. In such cases, it may even be possible for the enemy to achieve his own strategic goals despite tactical defeat.

5. Operational Reserve - Plans for sequels, those possible outcomes of battles, are crucial for operational success because they determine how tactical success will be exploited, or the operational consequences of tactical setbacks will be minimized. Such plans inevitably revolve around the retention of an adequate operational reserve. If the reserve is inadequate, exploitation of tactical success may lead to overextension and arrival at the culminating point. Once the culminating point is passed and the offensive slows, the attrition of reserves leaves the attacker weak in the face of counterattack, and vulnerable to defeat.<sup>16</sup>

6. Operational Sustainment - This term refers to the logistics and support required to keep operations moving toward the achievement of their objectives. Throughout all operations, commanders must conserve sustaining resources while setting priorities for further support.<sup>17</sup> Offensives that can not be logistically sustained are doomed to quickly reach their

culminating point, regardless of how spectacular the tactical successes may be. In fact, they can often be considered to have passed their culminating points before starting.

## CHAPTER II

### THE CAUSES

With the central terms and principles defined, the discussion will focus on how they apply in the analysis of tactical victories that lead to strategic defeats. Five broad categories of analysis will be presented with two historic examples to illustrate. It should be emphasized that the strategic defeats that resulted in each of these cases often had several causes, and in reality, could be considered as combinations of the categories presented. However, the examples were selected for illustration only, and are not intended to be strictly definitive.

**A. Misreading the Center of Gravity - In Search of the Decisive Point.** As previously discussed, the center of gravity is considered a key concept for the planning and conduct of war at the strategic, operational, and tactical levels. National strategy in war must focus on defeating the strategic center of gravity of the enemy to achieve national goals and objectives. Similarly, operations planned to achieve those goals must also focus on objectives that will defeat that center of gravity. If operations are directed toward objectives only because they are attainable, then the resulting tactical victory, no matter how spectacular, will only deplete valuable forces and resources. Such false victories delude the victor and ultimately deprive resources from being properly applied toward objectives which will truly defeat the enemy. The examples presented to illustrate this point are widely separated by time, but nonetheless, share common faults. Hannibal in Italy during the Second Punic War, and the United

States in Vietnam, failed to recognize the true center of gravity of the enemy, and despite impressive tactical victories, failed in their ultimate strategic purpose.

1. Hannibal in Italy, 216-201 BC

Facing over 85,000 of the ancient world's finest infantry with only 45,000 men, the double envelopment at Cannae led to an unprecedented slaughter that shook Rome to its foundation. With the loss of 29 tribunes and 80 senators, the men and arms of 16 legions, and one consul killed and one captured, it would take Rome ten years to recover.<sup>1</sup> Hannibal stood as master of Italy, with only two legions left to garrison the city of Rome.<sup>2</sup> Yet Hannibal turned away from Rome, and crossed the mountains of central Italy to occupy the port of Capua. Why? He recognized he did not have sufficient forces, or the necessary siege equipment to assault the heavily fortified city.<sup>3</sup> Surely he could have eventually gathered the forces and equipment necessary to lay siege to the city before Rome would again be strong enough to challenge him in the field, but he did not. Hannibal's strategy had never been to destroy Rome. Rather, he was in Italy to engage the Romans on their home soil, and therefore, protect the Carthaginian holdings in Spain.<sup>4</sup> In Italy, Hannibal wanted to shatter Rome's credibility with her allies. By roaming and plundering freely throughout Italy, he hoped to show Rome's Italian allies that Rome could not defend them. This defense mechanism had been the primary motivation for most of the alliances in the first place. If sufficiently threatened in Italy, Hannibal thought Rome could be forced to acknowledge Carthaginian claims to Spain, and thus stop interfering in Iberian affairs.<sup>5</sup> Although Polybius thought the real cause of the Second Punic War was Hamilcar's undying

enmity toward Rome transmitted to his son Hannibal,<sup>6</sup> in reality, Carthage viewed Rome as a threat in Spain. Roman involvement as a mediator in the internal affairs between the Iberian city states seemed to follow the historic mold for her expansion in Italy. This threat was probably exaggerated, but not to be discounted. Regardless, Hannibal provided the catalyst for war when he lay siege to Seguntum, who then asked for Roman help. Though not a formal ally, Rome took steps to intervene.

Hannibal sought to preempt the invasion of Spain by crossing the Alps and decisively defeating the Romans at Lake Trasimene in 217 BC. This was the first time Rome lay vulnerable. However, as previously stated, Hannibal did not recognize the city itself as the center of gravity, or believed it was too strong to assault. Rather, he chose objectives he could more easily achieve and directed his efforts against Rome's alliances. Unfortunately, in his methods for doing so, he also misread the nature of Rome's alliance system. Enlisting the support of the Gauls to plunder the countryside incited the populace against him. The Gauls had been widely feared throughout Italy because of a recent invasion between the First and Second Punic Wars.<sup>8</sup> With the Gauls running wild, Hannibal's proposals for liberation from Roman domination fell on deaf ears. Rome's demands on her Italian allies had, in fact, been relatively light - only manpower contributions for her legions.<sup>9</sup> After again missing his opportunity against a weakened Rome following Cannae in 216 BC, Hannibal spent the next 12 years roaming Italy, enjoying numerous tactical victories, but gradually weakening his forces. Realizing they could not decisively defeat Hannibal in Italy, Roman strategy focussed on Spain and Africa where they successfully wooed Carthaginian allies with generosity.<sup>10</sup> The great Roman

general Scipio Africanus then threatened Carthage itself, forcing Hannibal to leave what remained of his army in Italy, and to return to Africa.<sup>11</sup> There his forces were too weak, and following defeat at Zama, Carthage sued for peace, losing her holdings in Spain and her navy. Hannibal was forced to flee to Asia Minor, eventually committing suicide rather than facing capture by the Romans. And so ended the Second Punic War, with some of histories greatest tactical victories wasted in strategic defeat.

## 2. The US in Vietnam, 1965 - 1973

The United States committed combat forces to South Vietnam to support the strategic goal of a free, independent, and noncommunist South Vietnam. To achieve this strategic goal required a pacification program to defeat a communist-backed insurgency, while at the same time, a conventional effort to stop the infiltration of forces and arms from North Vietnam. Since these two objectives addressed different enemies, the Viet Cong (VC) and the North Vietnamese Army (NVA), and entailed two very different forms of warfare, it follows that each would have separate centers of gravity. Although ultimately the government of North Vietnam was behind both, political realities and diplomatic constraints dictated that this would be a limited war on the part of the United States. Therefore, the true strategic center of gravity, the Communist regime of North Vietnam, could not be attacked in an unlimited manner at the risk of Soviet or Chinese intervention and escalation of the conflict. Faced with these constraints, the United States still had options and objectives it could pursue to achieve its strategic goals. However, these options had to be pursued within operations properly directed at centers of gravity within the operational level. Clausewitz acknowledged that there may be different

centers of gravity at the strategic and tactical levels.<sup>12</sup> Therefore, if taken to a lower strategic level, the center of gravity for the insurgency of the Viet Cong was the support of the people, and for the NVA infiltration it was the security of the Ho Chi Minh Trail. While there were those in the US military who recognized these centers of gravity and attempted to direct operations toward them, too often American political and military leaders focussed resources on short term attainable tactical objectives. While always victorious in the field at the tactical level, a prolonged involvement with a rising casualty rate gradually sapped American will and attacked the center of gravity for a democratic society at war - popular support.

A successful pacification program must separate the insurgents from the population, provide security to the population from rebel reprisal, and win the support of the population for the regime.<sup>13</sup> While the Vietnam War combined many diverse types of warfare ranging from the guerilla elements of an insurgency to a full scale conventional war of invasion, in terms of the total war effort, insufficient emphasis and resources were allocated toward the counterinsurgency requirements of the pacification program.

From 1967 Defense Secretary MacNamara began to argue for a greater role of counterinsurgency and pacification,<sup>14</sup> and even General Westmoreland initially recognized the need for a strong pacification effort. However, Westmoreland eventually would favor relegating the effort entirely to the Vietnamese, and MacNamara met intense opposition from the JCS in their desire to stress conventional military solutions.

The development and arming of local regional and popular forces (RF/PF) showed promise in the pacification program. The use of indigenous

people, able to maintain closer ties with the population, and provide the security essential to successful counterinsurgency, provided a far cheaper and cost effective alternative to conventional forces.<sup>15</sup> Using Mobile Advisory Teams (MATs) to train the RF/PF resulted in impressive returns, by some accounts 12-30% of VC/NVA deaths were attributed to RF/PF at only 4% of the total cost of the war.<sup>16</sup> The Phoenix program, a program to target communist cadres in the south, also inflicted huge losses and damage to the Viet Cong infrastructure. Criticized heavily during the war, postwar study through Vietnamese accounts have proven that the program neutralized an estimated 25,000 communists.<sup>17</sup>

Despite these successes, U.S. strategy on the whole in Vietnam failed to recognize the role of counterinsurgency as a major component of the war. While it would be inaccurate to classify the war as strictly an insurgency, the role of the population in supporting local insurgents as well as northern forces was neglected in favor of 'big unit' conventional military action.<sup>18</sup> U.S. forces were improperly structured for counterinsurgency operations, and favored high firepower, high tech solutions, at a consequently high cost. Pacification's counterinsurgency requirements were considered a 'side show' and largely passed off to the ARVN or RF/PFs. The lack of a unified command structure, insufficient manpower, poor intelligence, the counterproductive actions of conventional forces, and the failure of the government of the Republic of Vietnam to win popular support, all inhibited the pacification program.

With the introduction of U.S. combat forces, US force structure proved inadequate for the demands of counterinsurgency. The Special Forces, Apache, Long Range Reconnaissance Patrols (LRRPs), and Delta units were



used mainly to support large unit operations, and were dedicated insufficient manpower considering the nature of the conflict. The use of conventional forces for counterinsurgency proved inadequate due to the Army's preoccupation with the Airmobile Concept. The extensive use of helicopter-borne forces to locate, attack, and then depart did nothing to secure the population or the ground. Areas 'pacified' in this manner were reclaimed by the enemy as soon as the helicopters departed. These airmobile forces also had problems with target identification, and required an inordinate force allocation for base security.<sup>19</sup> Conventional forces also had the detrimental effect of alienating the population because they were inadequately trained for positive interaction. Westmoreland's attrition strategy, and its emphasis on firepower and body counts, inevitably led to civilian deaths and the resultant fear and mistrust in the villages.<sup>20</sup> MACV often complained that it did not have the troops to support pacification. However, the huge numbers of men dedicated to support was mind-boggling. In 1968, only 80,000 of the 543,000 total troops in Vietnam were actual combat troops. More emphasis on the small unit action of counterinsurgency, as opposed to the big unit sweeps, would have made better use of the available manpower.<sup>21</sup>

The pacification strategy was also inadequate in dealing with the war's refugee problem. The government failed, and was not encouraged by the U.S., to relocate or re-educate the dispossessed, largely created by a U.S. preponderance for air and artillery firepower. The refugee problem reflected the failure of coordination between the pacification and conventional strategies. Defoliation, ARC LIGHT strikes, and 'depopulation' of areas further alienated the population and made them ripe for VC

enlistment.<sup>22</sup> Incredibly, Westmoreland initially approved of the creation of large refugee populations as a method to rob the VC of popular support.<sup>23</sup>

It would be wrong to attempt to stringently label or categorize the nature of Vietnam conflict as a conventional war or an insurgency. Conventional forces, in a variety of forms, definitely had a place. The Vietnam War was by no means a fully autonomous, indigenous insurrection,<sup>24</sup> and a variety of conventional strategies to prevent the infiltration from the north needed to be at least attempted.

Attempts to interdict the Ho Chi Minh trail were largely restricted to strategic bombing, with few applications of conventional US ground forces besides the Cambodian incursions. Colonel Harry Summers has addressed a number of options, such as General Bruce Palmer's proposal to cut the infiltration route from the DMZ, through Laos to the Thai border. Excessive concerns with Laotian and Cambodian neutrality negated consideration of these viable options.<sup>25</sup>

By failing to fully support an effective pacification effort, and by failing to interdict the Ho Chi Minh trail, US operations in South Vietnam were doomed to a series of pointless tactical victories. In directing operations toward VC and NVA troop concentrations, US military commanders were focussed on rolling up body counts to win a war of attrition. Though tactical victories were many, each hill and village taken and retaken did little toward achieving the strategic goal. Even in thwarting the TET offensive, a decimating tactical and operational defeat for the VC in South Vietnam, negative press and a rising US casualty toll attacked the US center of gravity, which resulted in reduced US involvement, and eventual strategic defeat.

B. Past the Culminating Point - Victory Fever. As discussed in the Introduction, recognition of the culminating point in an offensive is a critical concern for the operational planner and commander. It requires a keen understanding of the moral and material strength of one's own forces, as well as the enemy's forces. As a concept it draws heavily on the need to maintain an operational reserve, the importance of national resources and logistic support and sustainment. Recognition of the culminating point, even when identified by realistic objectives in the planning process, can easily become clouded in the face of overwhelming tactical success. Commonly known as "victory fever", the euphoria of success can quickly become intoxicating, and no level of command, from national leaders to the individual combat soldier, is immune. Japan's Pacific offensives in 1942, and the US drive to the Yalu River in 1950, are examples of how two very different cultures, militaries, and governments can fall victim to the same delusion.

1. The Japanese in the Pacific, 1942

Admiral Isoroku Yamamoto, Commander of the Combined Fleet, understood well the concept of the culminating point, and the possibly suicidal nature of an unlimited war between Japan and the West. In September of 1940, over a year before Pearl Harbor, he told the then Prime Minister, Prince Fumimaro Konoye:

'If I am told to fight regardless of the consequences, I shall run wild for the first six months or a year, but I have utterly no confidence for the second or third year. The Tripartite Pact has been concluded and we cannot help it. Now the situation has come to pass [that the Japanese cabinet was discussing war with the United States], I hope that you will endeavor to avoid a Japanese-American war.'<sup>28</sup>

Admiral Yamamoto seemed to realize that the culminating point for Japan

would be passed as soon as Japan declared war on the United States. However, he was to be overruled by Tojo and the extreme militarists who became ever more aggressive following Hitler's invasion of Russia in June of 1941. Pressure on the British and Dutch brought concessions too easily in Burma and the East Indies,<sup>27</sup> and continued success in China further fed the expansionist fires. With Tojo's firm conviction that Japan must establish primacy in Asia and the Pacific, and the West must be forced out, war was inevitable as long as the United States refused to acknowledge Japan's extended sphere of influence.

As the Combined Fleet steamed toward Hawaii in December 1941, it could be argued that the culminating point was being passed. Given the Japanese Navy's obsession with the search for a Mahanian decisive battle,<sup>28</sup> and their subsequent grandiose plans for a fight to the finish at sea, overextension seemed inevitable. However, once war was decided upon, more limited aims, and a more conservative strategy, may have achieved their goals. One strategist, Vice Admiral Inoue Shigeyoshi, urged the navy to junk its plans for "the decisive battle", and prepare instead for a protracted air and amphibious war in the central Pacific, use submarines to attack enemy commerce, and build large numbers of escort vessels for convoys to protect the sea lines of communication.<sup>29</sup> Wise advice in retrospect, but it fell on deaf ears. Consequently, Japan concentrated on battleships to an inordinate degree for the big showdown at sea, and suffered horribly to US submarines which eventually choked her maritime commerce. The preemptive strike on Pearl Harbor appeared to be a decisive victory, but its galvanic effect on American morale and resolve far outweighed the immediate advantage of sinking some out-dated battleships. However, the Japanese had made their bid for total victory,

and flushed with the success of Pearl Harbor, they moved rapidly to expand further.

Expanding quickly across the Pacific and into the Indian Ocean, the Japanese took Guam, Wake, and the Gilberts by the end of December, and launched invasions of Malaya and the Philippines. On all fronts the Japanese achieved phenomenal success: crushing the British in Malaya despite a 2:1 numerical inferiority; isolating Singapore; and annihilating allied forces at sea in the Far East. Singapore fell on 15 February 1942 with the surrender of over 130,000 British troops, the single most catastrophic defeat in British military history.<sup>30</sup> The Dutch East Indies followed in late February, then Burma in March. When Corregidor fell on 6 May, the Japanese strategic horizon ran around the whole western Pacific, and deep into China and Southeast Asia. All of the ocean archipelagos north of the equator were their's, and their prospects to the south were improving steadily. Not one of their eleven battleships, ten carriers, or eighteen heavy and twenty light cruisers had received significant damage; while the US Pacific and Asiatic Fleets had lost the use of all its battleships and large numbers of cruisers and destroyers. The British and Dutch Far Eastern fleets had been destroyed, and the Royal Australian Navy had been driven back to port. However, the US Pacific Fleet's handful of carriers, and the Hawaii and Midway bases still remained. Flushed with unimaginable victory, even Yamamoto was consumed with the fever. Total victory seemed to lay only a battle away.<sup>31</sup>

Coral Sea, a tactical draw, but a strategic American victory in turning Japanese efforts away from Australia, brought the first sobering of Japanese victory fever. The unqualified American victory at Midway sounded

the death knell for the Japanese offensive, and Guadalcanal put them on the defensive where they would remain for the rest of the war. Despite resounding tactical victories across the Pacific, and an impressive defensive perimeter, the Japanese were doomed to eventual strategic defeat. By over-extending and searching for the decisive battle at Midway, the culminating point had been passed. Despite their superior interior lines of communication and supply, the Japanese suffered from a weak economic and industrial base and a poor logistic force for dealing with the vast distances of the Western Pacific.<sup>32</sup> Additionally, the Japanese suffered from poor intelligence, communications, and strategic coordination. A more conservative strategy could possibly have yielded a more defensible position, and conserved their limited resources and forces. Victory fever, gained through tactical success, blinded them to what appears obvious today, and doomed them to total strategic defeat.

## 2. The United States in Korea, 1950

The United States in November 1950 was experiencing its own form of victory fever. After the dark days of the Pusan perimeter, following the shock of the North Korean invasion in July and August, a brilliant end-around at Inchon in September had been successful beyond anyone's imagination, except, of course, General Douglas MacArthur's.<sup>33</sup> The success continued into October as the North Korean forces reeled back under the onslaught of US and UN forces. Euphoria swept the United States from the man on the street to the White House. America was back on top, and the forces of democracy were driving the Communists not only out of South Korea, but deep into their own country. MacArthur, everyone's hero from World War II, had again proven the superiority of the American fighting

man. But as UN forces approached the 38th parallel, hard political and diplomatic decisions had to be made. The US faced three options: 1) Stop at the 38th parallel, the old border, and accept the status quo ante bellum; 2) Continue the advance north, take the North Korean capital of Pyongyang, and halt at the 'narrow waist' on the Sinanju-Wonsan line; or 3) Continue north all the way to the Yalu River and reunite the entire Korean peninsula.<sup>34</sup>

The decision to take the third option and continue to push north was a complex one and due to a number of factors. MacArthur was a very popular hero in what had been a very unpopular war, and few people wanted to be placed in the unpopular and politically risky position of reining him in. Many policy makers, and even the JCS, stood in awe of MacArthur's prestige and reputation. There was also a certain amount of fear that slowing the offensive would lose congressional and allied support for Cold War policies.<sup>35</sup> However, the dominant psychological factor seemed to be simple victory fever. It simply felt too good to be enjoying such tactical and operational success, so rather than be satisfied with the achievement of our original strategic goal of freeing South Korea, we changed our goal. 'Resistance to aggression' was changed to 'punishment of aggression', and we continued north to destroy the cause of the problem and affect a permanent solution.<sup>36</sup>

The decision to proceed north to the Yalu with the new strategic goal of reunification was by no means a usurpation by MacArthur forced on Truman. Rather, it was an agreed upon goal made with the full concurrence of Truman, his advisors, and the JCS.<sup>37</sup> Detailed instructions were passed to MacArthur from the JCS in September with caveats to prevent Chinese or

Soviet intervention, but essentially the green light was being given for operations in North Korea.<sup>38</sup>

Not everyone approved of the change in the strategic aim of the war. George Kennan, the author of containment, was disturbed by the emotional and moralistic conclusions being drawn from the 'defeat of aggression'.<sup>39</sup> General Walton Walker of the 8th Army was becoming worried with his ever extending lines of supply and communication.<sup>40</sup> Truman and the JCS were genuinely concerned about possible Chinese or Soviet intervention and strictly prohibited engagement of PRC or USSR forces. MacArthur was also instructed to use only ROK troops as he approached the Yalu, and to submit all future plans to JCS for approval.<sup>41</sup>

Chou En-lai gave his warning on 3 October that the PRC would enter the war if the US crossed the 38th parallel.<sup>42</sup> It is clear now that MacArthur refused to take the possibility of Chinese intervention seriously. When asked by Truman at their Wake meeting on 15 October about the possibility, MacArthur completely discounted it, stating that if it happened, 'it would be a slaughter'.<sup>43</sup> In fairness, though this statement seems criminally complacent now, it raised very few eyebrows, and seemed to be the prevailing opinion of all in the US government. Victory fever was in the air.

MacArthur's self-confidence and enthusiasm were at full tide in October 1950, and Truman allowed himself to be carried along with it. A good president, he had not yet learned what was needed of a great president, to know when not to believe a general.<sup>44</sup> Lincoln had learned the lesson well, and LBJ probably never did, but Truman was soon to get a graphic education.



On 25 October, the first Chinese units were encountered. Immediately, the incident was minimized by MacArthur as he tried to calm Truman.<sup>45</sup> With each tactical victory as he approached the Yalu, MacArthur closed his ears to the possibility of Chinese intervention. He was also disregarding the effect that the weather and terrain was having on his advance. His troops, especially X corps, were becoming more and more stretched out, and having communications and coordination difficulties.<sup>46</sup> Determined to get to the Yalu River, his supply lines were becoming over-extended. With his supply ports almost 80 miles to the rear, MacArthur's logistic pipeline was quickly becoming too long to defend properly.<sup>47</sup> Because of the peninsula's topography, with its north-south mountain ridges, the UN forces were moving north along many lines incapable of mutual support.<sup>48</sup> Despite concerns expressed by his field commanders, MacArthur would not be delayed. His plans changed week to week as he accelerated his advance in pursuit of a vanishing enemy. Splitting his forces to take advantage of the roads and maintain his speed of advance, he raced toward the Yalu bridges.<sup>49</sup> In pursuit of a prize with which to close out his career, he ignored the dark hints of disaster when the first reports of Chinese troops were received.<sup>50</sup>

As MacArthur raced for the Yalu bridges, the Chinese had been using night, smoke, and deception to mask their huge concentration of forces already across the Yalu from 6 to 24 November.<sup>51</sup> In bitter weather, the well-trained Chinese shock troops completely surprised the Americans, using aggressive tactics of encirclement and ambush. The resulting disaster and retreat was one of the worst reversals in US military history and only the ability and spirit of the troops and their on-scene commanders allowed a new line to be held at the 38th parallel.

Considering the new strategic goal of reunification, it was a resounding strategic defeat for the US, and forced another reappraisal of the goals for the war. Tactical victories had blinded both MacArthur and Truman. Though MacArthur undoubtedly misled the president about the possibility of Chinese intervention, he himself had failed to heed the obvious signs because they did not fit his own preconceptions.<sup>68</sup> MacArthur's ego was in the way, but Truman had also failed to trust his own misgivings. In the end, the administration escaped most of the culpability for the disaster. It suited their political purpose to saddle MacArthur with most of the blame, and it also suited their diplomatic purpose to brand China as the new aggressor. Therefore, the administration managed to have it both ways: they could satisfy the liberals by blaming MacArthur for the political and military failure, while satisfying the conservatives by blaming China.<sup>69</sup> The truth is that all levels of US command had been caught up in the euphoria, and victory fever had turned tactical victory into strategic defeat.

C. A Matter of Timing - Failures in Coordination, Integration and Synchronization. Tactical victories, no matter how singularly impressive, must be coordinated and synchronized to attain the operational linkage required for strategic victory. A string of disjointed victories that fail to achieve the overall goal, whether it is to sustain an offensive or thwart an opposing offensive, only depletes operational resources and ensures eventual defeat. Similarly, a tactical victory that is not properly timed in conjunction with action on another front, especially when working on exterior lines, may allow a numerically inferior opponent to shift forces to meet threats sequentially. Additionally, phased operations and

campaigns require each phase to achieve its objective according to schedule, or risk failure of the entire plan. In all cases, the capabilities of each force must be integrated to provide the most concentrated expression of combat power. Two historic examples of failures in timing will be presented to illustrate the importance of coordination, integration, and synchronization in linking tactical victories to achieve strategic goals.

#### 1. The Eastern Front, 1916

By 1916 the futile stalemate of the Western Front had been matched by the bloody and often pointless surges of ineffective offensives and counteroffensives on the Eastern Front. Despite a superiority in numbers of men and artillery, the Russian army had been incapable of translating it into success on the battlefield. By sheer weight of numbers they had been able to reverse some of the disasters of 1914, but most of the army suffered from gross systemic inadequacies that hindered operational effectiveness. The largely incompetent command structure seemed indifferent to most of the lessons of the Western Front. Artillery was massed and directed in aimless bombardments that did little damage to German or Austrian forces. Reconnaissance was deplorable or nonexistent, and there was a constant bickering between the artillery, infantry, and cavalry elements. Logistics was a hopeless tangle of bureaucracy and confusion characterized by snarled transport and distribution, and wasted supplies. Straining the entire system was an over-large cavalry element that choked the rear, consumed too much, and saw little action.<sup>70</sup>

The Russians had agreed at the Conference of Chantilly in 1915 to take the offensive in 1916 to support the allied offensives on the Western Front.<sup>71</sup> Ineffective offensives in the North had been attempted in April,

but they were doomed due to the problems already cited. However, to the south the army was experiencing a revival that would soon bring success beyond the Stavka's (the Russian general staff) wildest imagination.

General Brusilov, commanding the Russian army in the south, did not fit the incompetent mold of Russian generals of the time. Innovative and flexible, he surrounded himself with a young staff of similar men, and set upon an exhaustive study of the lessons to be learned from the Western Front. From this study, new tactics were developed that the Western Front would not learn for another two years. Emphasis was placed on security and secrecy in staging forces for attack. Large underground bunkers were built close to the front to stage shock troops for an offensive. Surprise became the paramount goal, with deception and diversionary movements planned for each group of the army. Huge preliminary bombardments were forsaken in favor of carefully targeted counterbattery strikes based on aerial photography. Assaults were planned in three to four waves to take subsequent lines of trenches and neutralize enemy reserves.<sup>72</sup>

When these tactics were first tried in June they achieved wild success in the south. A huge, 50 kilometer wide break-through on the Volhynia sent a panic through the Austrians, and they fell back in a headlong retreat. The Russians raced to Bukovina and the Carpathian passes, capturing over 200,000 Austrian prisoners.<sup>73</sup> The entire Eastern Front was in danger of collapsing, but the old Russian system would eventually thwart the success in the south.

For the June offensive to succeed, it had to be a coordinated effort, not only synchronized between north and south, but also with the offensives in the west. Unfortunately, the commanders in the north were slow to commence the attack, not starting until July, and their offensives were

half-hearted and short-lived. The Somme offensive in the West did not commence until July either. This allowed the Germans to shift forces south to assist the Austrians in time to slow and eventually stop the Russian offensive in the south. Additional Austrian forces were also brought from the Italian front. Brusilov was on his own to fight the combined forces of the Central Powers in June.<sup>74</sup>

Much of Brusilov's surprise in the south had been achieved due to a precise integration of his artillery in the assault. By actually using far less shells in the preliminary bombardment, the enemy was not alerted and surprise was achieved. In the north, the Russian commanders failed to heed this lesson, and by the time they finally started the assault after a massive bombardment, the enemy was waiting and easily repulsed them. Incredibly, despite using three times the shells as Brusilov, they complained that their offensives failed due to a lack of artillery ammunition!<sup>75</sup>

Eventually, Stavka realized that the breakthrough of the south was not going to be repeated in the north, and sent two armies south in an effort to exploit Brusilov's gains. However, it was too slow in happening, and the Germans were able to shift troops from the north and west, reinforce the Austrians, and construct additional defenses. As the offensive slowed, Brusilov was forced to resort to battering ram techniques to take advantage of his superiority in troops and artillery.<sup>76</sup> The Russians simply did not have the mobility to exploit their breakthroughs, and the narrow front "grand phalanx" tactics began to grind down the army in an endless cycle of carnage. Stavka continued to show reluctance in moving the forces and munitions from other fronts to the south, while the

Germans continued to employ their superior railroads to shuttle troops wherever needed.<sup>77</sup> Behind the Russian front most railroads ran east to west out of the more heavily populated cities, and, therefore, slowed the movement of forces from north to south.<sup>78</sup>

In the end the offensive to the south slowed to a bloody stalemate that further ground down the Russian war machine. Romania's entry into the war only provided a wider front for the Russians to defend, and this proved to be Russia's last major effort of the war. Brusilov's offensive was a brilliant tactical success that undoubtedly provided relief for the French at Verdun, the British at the Somme, and Italy in the Tyrol. However, by failing to coordinate more closely with the offensives in the west, and in failing to deal with the Germans to the north, tactical success could not be translated into strategic victory. In the north, a failure to integrate the artillery and the lethargy in coordinating with the south virtually guaranteed failure. The Austrians were surely exhausted, but the Russian exhaustion became complete. Morale plunged to its lowest, disobedience and antiwar propaganda grew, and the six months of steady fighting eventually would lead to total collapse.<sup>79</sup> Failure to coordinate, synchronize, and integrate, turned tactical victory into strategic defeat.

## 2. Operation Market Garden, 1944

In September 1944, the Allies, with Montgomery in the north and Patton in the south, were driving the Germans out of France and across Belgium and the Netherlands. Pursuing Eisenhower's broad front strategy, the battlefront ran continuously from the Schelde estuary in Belgium to the headwaters of the Rhine at Basle on the Swiss frontier.<sup>80</sup> Seeking a decisive breakthrough, Montgomery and his staff conceived an operation

using the First Allied Airborne Army (the British 1st and the American 82nd and 101st Airborne Divisions) to leap across the Meuse and lower Rhine, establish a foothold on the north German plain, and capture the Ruhr, the industrial heart of Germany's war economy.

It would be a two part operation: Operation Market, consisting of an airborne assault by the First Allied Airborne to secure crossings of the Maas, Waal and Rhine rivers; and Operation Garden, an armored assault north by XXX Corps to open a corridor and form a lodgement at the final crossing of the Rhine at Arnhem.<sup>81</sup> It was a bold plan, and in keeping with Montgomery's desire for the "knockout blow" with all available resources, vice Eisenhower's desire to consolidate and open the channel ports, such as Antwerp, which were so necessary to logistically sustain the offensive.

When they met in early September, Eisenhower was not predisposed to look kindly on another of Montgomery's plans. Montgomery had been badgering him incessantly to slow Patton, and dedicate more resources to a narrow penetration in the north. However, when presented with the new plan, Eisenhower could not help but be impressed with its audacity. It also served several purposes for the Supreme Allied Commander. For months, Ike had been receiving pressure from Washington to find a mission for the First Allied Airborne Army. Several missions had been planned, but aborted due to weather, or the objectives had simply been outstripped by the rapidly advancing ground units. The British were also pressuring for some sort of aggressive action to stop the continued V-2 rocket assaults on London. Therefore, despite his dislike for Monty, and some soldierly misgivings, Ike approved the plan as long as it required no additional resources and fit within the broad front strategy.<sup>82</sup>

The bridges at Eindhoven and Nijmegen were taken by the American

airborne divisions in hard fought, but brilliant tactical successes. However, the British 1st Airborne Division ran into significant problems at Arnhem, and the northern advance of XXX Corps proved far too slow. The British paratroopers had been expecting to encounter a handful of dispirited 'ear and stomach' battalions;<sup>83</sup> however, poor intelligence had failed to warn them that cadres of two Panzer divisions were resting at Arnhem.<sup>84</sup> The drop of the 1st Airborne had also been spread out over several days, completely diluting the element of surprise. The large distance of the DZ/LZs from the objective due to an exaggeration of the flak threat, caused additional complications and confusion as units became separated and could not give mutual support.<sup>85</sup> Communications between units became a problem due to radio failures, and the pinning down and isolation of the division commander, Urquhart, destroyed all unity of command.<sup>86</sup> Because of the confusion and underestimated opposition, only 700 of the 10,000 British paratroopers made it to the Arnhem bridge, where through sheer guts and determination they took and held the bridge for three days and waited for relief.<sup>87</sup>

Bad weather prevented dropping additional supplies and reinforcements for the Arnhem defenders,<sup>88</sup> and XXX Corps was finding their northward advance a slow slugging match. Again, poor intelligence was a factor. Fighting their way north on a narrow road, the armored column was presenting too narrow a front to the opposition, which again had been grossly underestimated.<sup>89</sup> Though the Dutch resistance was well aware of the difficulty that would be encountered on this road, their recommendation for the secondary road had been ignored.<sup>90</sup> A lack of close air support also hampered the northern advance, as it did the entire operation.<sup>91</sup>



When it became obvious that they would never reach the tightening German stranglehold on the Arnhem defenders, the operation was aborted and the remnants of the 1st Airborne Division were on their own to escape. Only 2,000 men managed to swim and ferry themselves down the Rhine to safety, and the valiant defenders of the bridge finally succumbed, having held their objective twice as long as expected. With over 1,000 killed, and 6,000 captured, the 1st Airborne Division effectively ceased to exist.<sup>92</sup>

Montgomery claimed Operation Market Garden was '90% successful',<sup>93</sup> and tactically it was - all crossings but the last had been secured. But no one was buying it. Montgomery knew the operation was a failure on the operational and strategic level. Valuable resources had been lost without significant gains for the allied advance. More importantly, effort had been directed away from securing the Schelde estuary, and the allied offensive now desperately needed those ports to sustain its momentum. It had been a failure in coordination at the tactical level with the confusion of the northern drops. Gross overestimation of XXX Corps' speed of advance had destroyed the required synchronization, and the lack of close air support for the armored assault was a failure of integration. Timing was essential to the entire operation, and its failure spelled overall defeat, despite the impressive tactical successes at Eindhoven and Nijmegen.

**D. No Knock-out Punch - The Lack of an Adequate Operational Reserve.** When the commander fails to retain a sufficient operational reserve, tactical victories become hollow when they cannot be exploited. The ground or advantage gained often must then be surrendered and strategic defeat accepted. Lee's aborted Maryland offensive at Antietam in 1862, and

the German 'Michael' offensives of 1918 provide historic illustrations of the importance of the operational reserve.

1. Antietam, 1862

In September of 1862, General Robert E. Lee and his Army of Northern Virginia, flushed with their crushing victory over the Army of the Potomac at Second Manassas, crossed the Potomac and invaded Maryland. The invasion was launched for political as well as strategic and military reasons. Though his army was worn and weary, Lee sensed that the North's spirit was at an all time low. Confederate invasions were underway in Kentucky and Tennessee, and an effort to turn Maryland to the secessionist cause might be just the final straw needed to force Lincoln to sue for peace. On the military side, the fat farms of Maryland and Pennsylvania could sustain his hungry troops and spare war-torn Virginia for the harvest season. At the least, Lee felt he could cut Washington's vital rail communications with the West. Diplomatically, a successful invasion might encourage foreign recognition, while politically it might bring more 'peace democrats' to power in the upcoming northern elections.<sup>94</sup>

The Army of Northern Virginia, though spirited and buoyed with victory, suffered fatal inadequacies. First of all, it was simply too small to undertake an invasion of this magnitude, only 55,000 men. Secondly, it was in deplorable condition, most of the men suffering from various states of exhaustion, hunger, and sickness. A large part of them did not even have shoes, and marched with torn and bloody feet over the stony roads. Stragglers fell out by the thousands as they marched north.<sup>95</sup>

The southerners' reception in western Maryland was considerably cooler than Lee had expected, and constituted the first strategic failure

of the invasion. There was no sweeping movement to join the Southern cause. The next setback was the loss of a set of Lee's war plans which the union general McClellan now possessed.<sup>96</sup>

Lee consolidated his troops in response to the lost orders, ordering all units to concentrate at Sharpsburg, a Maryland village about a mile north of the Potomac. McClellan failed to attack before Lee had concentrated most of his forces, but he still enjoyed a 2:1 numerical advantage when the battle commenced 17 September. The battle that followed was the bloodiest in American history to date, and killed more than had fallen in all the previous wars combined. Repeatedly, uncoordinated Union assaults had attempted to dislodge the Confederates from Sharpsburg, but by day's end they left the field to the Southerners.<sup>97</sup> It had been a close affair for Lee, and it might have turned out differently if A.P. Hill's division had not arrived from Harper's Ferry in time to turn back the last Union assault.<sup>98</sup> The day ended with 6,000 dead and over 17,000 wounded.<sup>99</sup>

The next day Lee stood his ground despite the horrific losses he had suffered, and waited for another Union assault. However, it would never come. McClellan, as he was prone to do, believed grossly exaggerated estimates of Lee's strength and refused another attack. For his part, Lee was a victim of his shrunken army, and his lack of an operational reserve to follow up his tactical victory. By necessity, he was forced to end his northern invasion and retreat back into Virginia. Though tactically unbeaten in the field, he lacked the forces and resources to achieve the South's ultimate goals. The South had lost nearly a third of its invasion force as casualties, failed to earn foreign recognition, and was forced to accept a strategic defeat.<sup>100</sup>

## 2. The German Offensives of 1918

Despite the bloody stalemate of the past four years, 1918 found the German Chief of the General Staff, Erich Ludendorff still searching for the one great decisive victory to win the war. As early as April of 1917, he had begun planning for a major offensive in 1918.<sup>101</sup> However, all planning was on the tactical and operational level, with no serious strategic discussion between the General Staff, emperor, chancellor, or the Austro-Hungarian allies. Rather, though inferior in numbers of men, artillery, aircraft, and armor, the Germans sought to compensate with superior training and tactics.<sup>102</sup>

The new tactics to be employed were based on past experience, astute intelligence, and detailed staff work. New infiltration techniques were developed to disrupt enemy centers of resistance, and penetrate the lines as deeply as possible. Special assault troops, "storm troopers" using semiautomatic weapons, would lead the assaults after a massive, sudden "hurricane bombardment". Officers and men were retrained in special training courses on the new tactics.<sup>103</sup>

Ludendorff's strategic vision for the goals of Michael was critically flawed. There was no key operational objective, rather the goal was to simply create a break in the Allied lines and move into an open war of maneuver.<sup>104</sup> However, the operation lacked the forces to carry out this open-ended objective. Allied strength was grossly underestimated, and an insufficient operational reserve was in place to exploit the breakthrough. At the time of the Michael offensives, there were still 34 divisions in defeated Russia that could have been used.<sup>105</sup>

Seventy German attack divisions were taken out of the line in

November of 1917 to be specially trained and equipped for the Spring offensive.<sup>106</sup> When the offensive commenced in March of 1918, it met with spectacular initial success. The new tactics achieved breakthroughs across the entire front, and threw the Allies into panic. The success of the tactics was especially impressive considering the horrendous losses of NCOs and officers that the Germans had suffered since 1916.<sup>107</sup> However, despite an overall inferiority in numbers, the Germans did have advantages. They massed superior strength at the point of the offensive, almost 20 divisions, which hit the Allies right where their forces joined. The French were still weak and disheartened from their disastrous Nivelle offensive, and the British had been bled white at Passchendaele. The British had also failed to build sufficient defense in depth, and the fury of the initial German assaults in the early morning fog, preceded by "hurricane bombardments", wreaked havoc from the start.<sup>108</sup>

Eventually, the spectacular German gains of March and April began to slow, and the fronts again ground to a halt. The Germans did not have the reserves to land the elusive "knockout blow" they sought. By 30 April, the British had suffered 240,000 casualties, the French 92,000, and the Germans 348,000 casualties.<sup>109</sup> The Germans clearly could not withstand such losses, but still the offensives continued through the Spring. Even when it became obvious that the decisive battle was an illusion, Ludendorff sought further tactical victories. Yet there was still no clear strategic goal. Tactical victories would have to pave the way for operational effectiveness, which might achieve strategic results.<sup>110</sup> The field commanders began to see the futility of the offensives, and Crown Prince Ruprecht, in reference to the General Staff's obsession with ground gained,

noted, 'I get the impression as if the OHC is living from hand to mouth without acknowledging any definitive operational design.'<sup>111</sup> General Groener stated that 'Ludendorff pursued success without a clear operational goal', and it was quickly becoming 'an unraveled operation that turned tactical victory into strategic defeat.'<sup>112</sup>

By 14 June, even Ludendorff could see the futility of continuing the Michael offensives. The ground gained had indeed been 'pyrrhic victories', as Ruprecht had branded the offensives.<sup>113</sup> The Germans had suffered over 700,000 casualties, a loss that could not be covered by the semiannual levy of recruits. The government had completely lost confidence in the army, and the drought and poor harvest in Germany combined to destroy whatever support for the war remained. Ludendorff himself began to lose confidence, and in July he ordered one last offensive in desperation. It was a giant pincer operation that the Germans lacked the forces or resolve to carry out successfully. The French anticipated the move with a massive counterbombardment that killed many of the 'storm troopers' massed at their jumping off points. An elaborate defense in-depth stopped the subsequent assaults cold.<sup>114</sup> The French counterattacked on 18 July, and began to roll the Germans back from their over-extended positions. The German war machine was exhausted, at the end of its physical and psychological capacity, and began to disintegrate in the face of the counteroffensive. Mutinies became widespread, and gangs of deserters harassed reserves coming up to the front as 'strike breakers'.<sup>115</sup> Ludendorff was a broken man, and the end came in September with Germany's final acceptance of defeat.

Ludendorff had launched the offensives of 1918 in search of the decisive victory. However, he had failed to learn the lessons of the

previous four years. While showing admirable tactical skill and innovation, he could not admit that a battle of annihilation was unachievable given the forces available. What operational reserve he had was quickly ground up in the course of the offensive. The kind of exploitation he envisaged after his breakthrough would have required a huge reserve. Instead, the result was a series of pointless tactical victories that could not be followed up, or even held in the end. In fact, tactical victory had expended valuable resources, only to lead to strategic defeat.

E. Logistics - The Key to Operational Sustainment. Logistics, 'the practical art of moving armies and keeping them supplied',<sup>116</sup> is the key to successful operational sustainment. An offensive may enjoy initial tactical success, but if sustaining resources can not be brought together, transported, and effectively distributed, then the offensive will falter and initial success will lead to ultimate strategic defeat. Two examples, widely separated in history, will show the timeless importance of logistics in determining the ability to sustain offensive operations.

1. Napoleon in Russia, 1812

*La Grande Armee de Russie*, organized by Napoleon in 1812, was the largest army to date assembled for a single operation, over 650,000 men. Although he predicted a quick campaign of only five weeks, Napoleon had taken unusual logistical precautions for the day. Throughout 1811 he had built up supply depots in Prussia and Poland, and he organized twenty-six transport battalions in recognition of the grave logistical problems he would encounter in Russia.<sup>117</sup> Indeed, considering all the brilliant victories he had previously achieved on a logistical shoestring, it is

ironic that his greatest defeat would result from an operation that he so thoroughly planned and prepared.<sup>118</sup>

Despite his massive logistical preparations, simple calculations could show that there were insufficient supplies and transportation to support an offensive all the way to Moscow.<sup>119</sup> Therefore, though the exact details of his operational plans have not survived, it seems clear that Napoleon intended a quick campaign to annihilate the Russian army near the frontier, and force the Tsar to sue for peace. If pursuit of the Russian army became necessary, it appears he planned to go only as far as Smolensk, establish a base, and wait until the spring to renew the offensive.<sup>120</sup>

From the start, the *Grande Armee's* progress through Russian Poland was hampered by its unaccustomed reliance on the huge, slow-moving transport and food columns. As a result, the first attempts to trap the Russians in a decisive engagement failed, and with his forces scattered over the countryside, Napoleon was forced to stop and consolidate his sprawling army and make order of his chaotic rear. Only days into the campaign, the army began to experience supply and distribution problems and had to start foraging.<sup>121</sup>

The Russian armies continued to retreat and avoid battle, while generals Barclay and Begratton were able to link up west of Smolensk, and thus deprive Napoleon of the opportunity to destroy them separately. The French advance began to encounter heavy resistance, and the intense summer heat began to take its toll, further slowing and stringing out the massive force. Additionally, the French were losing significant forces along the way as garrisons to protect their increasingly long supply lines.<sup>122</sup>



An effort to cut the Russian line of retreat at Smolensk succeeded in capturing the city, but the Russian army again escaped. At this point Napoleon would have been wise to stop, consolidate, and wait for winter. However, he pressed on in search of the decisive victory, his original army now reduced to 156,000 men fighting across a 700 mile front.<sup>123</sup>

Following another impressive tactical victory at Borodino, Napoleon took Moscow. However, the Russian army, though severely mauled, had escaped annihilation. Moscow offered no support for the over-extended Napoleon as he found it deserted, and a large fire burned two-thirds of the city. The Tsar refused all peace proposals, and Napoleon found himself facing a gathering of fresh Russian armies totalling over 110,000 and growing. With only 90,000 operational troops remaining, the emperor decided it was time to retreat.<sup>124</sup>

Originally planning to fall back on Smolensk and wait out the winter in accordance with his original plan, Napoleon found the depots there already consumed. The ravaged countryside offered no support, and the supply train had ceased to function. Now the snow began falling, and new Russian armies began to converge from the north and east. The precious French supply depots at Minsk were captured; and deprived of support, the cohesion of the *Grande Armee* began to disintegrate.<sup>125</sup>

The subsequent retreat from Russia comprised one of the greatest military disasters in history. Nearly 300,000 men perished, 100,000 captured, and only 70,000 crossed the Vistula on the return.<sup>126</sup> The rest of the *Grande Armee* was missing, having fallen out, deserted, or otherwise disappeared. Napoleon had made logistical plans and preparations unheard of in his day. Yet, knowing their importance, he continued with an operation he could not support. The tactical victories on the road to Moscow only

served to weaken his army, and the logistical failure turned the retreat into a rout. The pursuit of decisive tactical victory, without regard to operational sustainment, brought about one of history's greatest strategic defeats.

## 2. Rommel in North Africa, 1941-42

For dash, audacity, and inspirational leadership in the field, few campaigns throughout history can match those of Field Marshal Erwin Rommel's in the Western Desert from March 1941 to September 1942. However, though he repeatedly displayed tactical brilliance, careful analysis shows Rommel's refusal to follow the basic tenets of operational sustainment doomed him to strategic defeat.

The World War II campaigns in the desert challenged the morale and fighting spirit of both British and German troops. The British solution was to provide their forces with the very best material and logistical support possible, and an occasional respite in the rear. Rommel, on the other hand, concentrated on building spirit through his personal leadership at the front, with rigorous training, and numerous tactical victories.<sup>127</sup>

When Rommel first arrived in Africa to rescue the floundering Italian forces, he faced a number of strategic and operational restrictions. First of all, as a secondary theater of the war, he had to compete for resources with higher priority operations such as Barbarossa, the invasion of Russia. The German strategic goal in North Africa was to tie down British forces and protect the southern front.<sup>128</sup> From the beginning, Rommel was warned by OKH to restrict his operations to the logistical realities of the theater. Dependent on the sea lines of communication from Italy, he faced constant interruption of his supplies due to Allied interdiction. The ports in North Africa were limited in number and capacity, and he also lacked air

superiority in the theater. For distribution in theater, there were no railroads, and only one hard-surfaced road that ran along the coast. Motorized cargo transport was also in short supply.<sup>129</sup>

Rommel started his first desert offensive of March 1941 in typically dramatic fashion, driving the British back over 400 miles without pausing for logistics. Relying on the Italians to supply Tripoli, and then using coastal shipping to shuttle supplies, he drove his *Afrikakorps* beyond its conventional logistical limits. Rommel showed little interest in logistical planning in the first offensive, preferring to let his staff sort out how his tanks would get gas.<sup>130</sup> By April he had taken Benghazi, but many of his columns were stranded for lack of fuel and water. Tobruk was surrounded in his rear, but it was heavily defended, and he lacked the strength for an assault.

OKH refused additional forces to Rommel for taking Tobruk, and although impressed with his gains, became increasingly concerned with his operating style. The operations in North Africa did not fit into their strategic plans, and they refused to dedicate precious men, material, and resources to a sideshow of the war. Rommel, for his part, continued to ignore the logistical realities of his theater. Demanding more supplies into Benghazi, he continued to blame the Italians for not supporting him.<sup>131</sup> However, this was not the real problem. Though suffering considerable losses due to interdiction of the sea lines of communication from Italy, the main problem was one of receipt and distribution of supplies within the theater of operations due to a limited port capacity, inadequate staging and transport, and excessively long land lines of communication.<sup>132</sup> The truth was that Rommel could not possibly use all

the supplies the Italians delivered because his truck force, despite being ten times as large as for a similar sized force in Russia, could not get them to him.<sup>133</sup> Despite his success, Rommel was a victim of the reality of sustainment in the desert: as one force advanced, its supply lines lengthened and became more tenuous, while the retreating force's lines became shorter and stronger.<sup>134</sup>

Rommel's focus on Tobruk was for two reasons. First, he wanted to remove the threat to his flank so that he would be free to move toward Egypt. Secondly, he wanted it for another coastal supply port, despite the fact that he had insufficient coastal craft to utilize it fully.<sup>135</sup> Ignoring the advice of his logistics staff, Rommel continued the assault on Tobruk in November of 1941. The British launched Operation Crusader as a counteroffensive to relieve Tobruk, and Rommel defeated it badly. Splitting the British forces, and cutting their supply lines, the Germans were able to capture huge quantities of fuel and stores. However, pushing speed at all cost, in the process of a wild pursuit of the retreating British, even larger depots were missed, and again Rommel found his forces over-extended and scattered over the desert. By December, Rommel was forced to retreat back to Al Agheila where he had started in March, and Tobruk was relieved. Undefeated in the field, Rommel had fallen victim to his own logistics.<sup>136</sup>

In January of 1942, with shorter supply lines, Rommel was ready for the offensive again. Without notifying his superiors, he surprised the British, and again scored a series of brilliant tactical victories, this time taking Tobruk by 21 June.<sup>137</sup> Loaded with captured supplies, he set his sights on Egypt. Refusing to rest his exhausted *Panzerarmee*, Rommel

felt his extended position, and the steadily growing British forces in Africa, required one last attempt at a knock-out blow. Blazing across the desert at top speed toward Suez, the final offensive was consuming far more than it was receiving logistically. The supply lines were simply too long. The ports of Tobruk and Mersa Matruh were not being used yet, and Allied air began to take an increasingly high toll at sea and along the 1100 miles of road. At Alam El Halfa Rommel made a last desperate stab, but British resistance was stiff, and his tanks began to run out of fuel. Under heavy air attack, the German retreat began, and at El Alamein came defeat and the beginning of the end for the *Afrikakorps*.<sup>138</sup>

Though a brilliant and inspirational leader, Rommel had failed to understand the link between operational design and sustainment. Cairo was an unrealistic goal from the start. Always blaming the Italians for his supply problems, he refused to acknowledge that his scope of operations was beyond both the Italian and German high commands' ability to support it. Blinded by his ego, his quest for decisive victory was far beyond the reality of his capabilities, especially in 1942.<sup>139</sup> His logistics focus was always on the tactical level, always reactive, and he became involved only when matters deteriorated to the point that he had to do so to regain the initiative.<sup>140</sup> When operations are not sequenced in accordance with the sustainment capability, then the entire campaign will be in jeopardy.

The German high command failed in its selection of a commander they knew to be highly aggressive for a secondary theater to fight a holding action. By failing to curb his offensive operations, they attrited precious Axis forces, which led directly to the fall of Italy and the collapse of the southern front. Enamored with Rommel's tactical victories that could not be sustained, they unknowingly accepted strategic defeat.

## CHAPTER III

### CONCLUSION:

#### LESSONS FOR TODAY'S OPERATIONAL COMMANDER

The lessons of history illustrate the ageless principles of operational art for the modern military commander. The center of gravity, as the focus for the planning and execution of military operations today, is as critical as it was in Hannibal's day. The pursuit of an objective, only because it is easily achieved, may lead to a hollow tactical victory.

Victory for its own sake, regardless of its strategic relevance, can become addictive. Victory fever can grip an entire nation as easily as it can the commander, and the commander must keep his strategic objective foremost in his operational vision. When nations attempt to change their strategic objectives in light of tactical success, the commander must remember his position as the expert closest to the problem, and offer cautionary advice on the dangers involved.

Once the strategic and operational objectives are properly established, operations must be planned and executed in conjunction with other operations to maximize their combined effectiveness. Throughout history, finely conceived and brilliantly executed operations have achieved wasted success when the enemy was given time and space to marshal resources to meet threats sequentially. The modern military commander must coordinate and synchronize his actions within his own force, and with other forces and fronts on a joint and combined level. The need to integrate different capabilities is fully recognized within the new joint emphasis on operations as the best way to maximize combat effectiveness in an era of

shrinking resources. The new regional focus for the US and our allies further underscores the importance of effective coordination, integration, and synchronization.

Operational reserves and sustainment are also ageless principles that continue to prove relevant in today's military operations. With shrinking resources and a reduction in forward bases, US military planners must adjust their objectives accordingly. Forces will undoubtedly be smaller, and planning objectives must be formulated with close analysis of where and when culminating points can be projected. The reduction in forward bases, and the dubious outlook for maintaining a costly strategic lift capability, will effect logistical planning and force sustainment issues that, in turn, determine the size of the conflict we can support. Victories that can not be sustained only pave the way for eventual defeat.

Victory on the battlefield provides the ultimate gratification for the troops, the commander, and the nation. It can provide critical rejuvenation of an army's morale, a commander's confidence, and a nation's will. Politically, it can spell the survival of a national leader, a party, or a form of government. However, by its very ability to justify a cause, ensure survival, or satisfy basic human nature, it can constitute the greatest danger. Every victory must be thoroughly analyzed within the context of the strategic goals it is designed to achieve, and its true effect on future operations. The operational commander is in the best position to provide the most accurate and rational analysis of victory. Failure to do so will ultimately relegate him to history's pantheon of doomed tactical geniuses who won their battles, and lost the war.

## NOTES

### Chapter I

1. US Department of the Army, Field Manual (FM) 100-5, Operations (Washington, DC: US Government Printing Office, May 1986) p.10.
2. John F. Meehan, "The Operational Trilogy". Parameters: Journal of the US Army War College, Autumn 1986, p.9.
3. Kenneth K. Carlson, "Operational Level or Operational Art?". Military Review, October 1987, p.50.
4. FM 100-5, p.10.
5. Carl von Clausewitz, On War, ed. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976), pp. 595-596.
6. Ibid., p. 485.
7. Lawrence L. Izzo, "The Center of Gravity is not an Achilles Heel", Military Review, January 1988, p. 72.
8. FM 100-5, p. 179.
9. Ibid.
10. Izzo, p. 79.
11. FM 100-5, p. 181.
12. Clausewitz, p. 528.
13. FM 100-5, p. 181.
14. Clausewitz, p. 128.
15. FM 100-5, pp. 14-15.
16. Ibid., pp. 31,110.
17. Ibid., p. 70.

### Chapter II

1. D. Eggengerger, An Encyclopedia of Battles: Accounts of Over 1560 Battles from 1479 BC to the Present, (New York:Dover, 1985), pp. 75-76.
2. R.M. Errington, The Dawn of Empire: Rome's Rise to World Power, (Ithaca, New York: Cornell University Press, 1972), p. 74.



3. E.R. Dupuy and Trevor Dupuy, The Encyclopedia of Military History from 3500 BC to the Present, (New York: Harper and Row, 1986), p. 66.
4. Errington, p. 62.
5. Ibid., p. 63.
6. Polybius, On Roman Imperialism. Evelyn S. Shucksbury, translator. (South Bend: Regnery Gateway, 1980), p. 101.
8. Errington, p. 70.
9. Ibid.
10. Ibid., p. 84.
11. Ibid., p. 90.
12. Clausewitz, p. 596.
13. Ian F.W. Beckett, 'American Counterinsurgency'. Lecture. U.S. Naval War College, Newport, RI: 29 October 1992.
14. Stanley Karnow, Vietnam: A History. (New York: Viking, 1983), p. 501.
15. Andrew F. Krepinevich, The Army and Vietnam. (Baltimore, MD: The Johns Hopkins University Press, 1986), p. 219.
16. Ibid., p. 221.
17. Karnow, pp. 601-602.
18. Brower, C.F. 'American Strategy in Vietnam, 1965-1968'. Lecture, U.S. Naval War College, Newport, RI: 2 November 1992.
19. Krepinevitch, p. 125.
20. Ibid., pp. 204-205.
21. Ibid., pp. 195-196.
22. Ibid., pp. 200.
23. Ibid., p. 223.
24. Karnow, p. 401.

25. Harry G. Summers, Jr., On Strategy: The Vietnam War in Context (Carlisle Barracks, Pa: U.S. Army War College, 1983), p.76.
26. John Keegan, The Second World War, (New York: Penguin Books, 1989), p. 241.
27. Ibid., p. 244.
28. Ronald H. Spector, Eagle Against the Sun: The American War with Japan, (New York: Random House, 1985), p. 43.
29. Ibid., p. 48.
30. Keegan, p. 261.
31. Ibid., p. 267.
32. H.P. Willmott, Empires in the Balance: Japanese and Allied Pacific Strategies to April 1942, (Annapolis Md: Naval Institute Press, 1982), p. 452.
33. James L. Stokesbury, A Short History of the Korean War, (New York: William Morrow, 1988), pp. 77-78.
34. Ibid., pp. 79-80.
35. Lloyd C. Gardner, The Korean War, (New York: New York Times Company, 1972), p. 19.
36. Bernard Brodie, War and Politics, (New York: MacMillan, 1973), p. 70.
37. Gardner, p. 19.
38. Stokesbury, p. 80.
39. Brodie, p. 72.
40. Ibid., p. 73.
41. Ibid., p. 71.
42. Ibid., p. 73.
43. Stokesbury, p. 89.
44. Brodie, p. 74.
45. Ibid.

46. Mathew B. Ridgway, The Korean War, (Garden City, NY: Doubleday. 1967), p. 47.
47. Ibid., p. 49.
48. Ibid., p. 50.
49. Brodie, p. 76.
50. Ridgway, p. 45.
51. Brodie, p. 77.
68. Ibid.
69. Gardner, p. 21.
70. Bernadotte Schmitt and Harold C. Vedeler, The World in the Crucible, (New York: Harper and Row, 1988), p. 148.
71. Ibid., p. 147.
72. Ibid., p. 148-149.
73. Ibid., p. 149.
74. Ibid., p. 150.
75. Allan R. Millet and Williamson Murray, Military Effectiveness, (Boston: Unwin Hyman, 1988), p. 308.
76. Schmitt and Vedeler, p. 151.
77. Millet and Murray, p. 308.
78. Ibid., p. 296.
79. Schmitt and Vedeler, p. 152.
80. Keegan, p. 436.
81. Maurice Tugwell, Arnhem: A Case Study, (London: Thornton Cox. 1975), p. 19.
82. Cornelius Ryan, A Bridge Too Far, (New York: Simon and Shuster, 1974), p. 27.
83. James Sims, Arnhem Spearhead: A Private Soldier's Story, (London: Imperial War Museum Press, 1978), p. 10.
84. Tugwell, p. 11.

85. Ibid., p. 10.
86. Ibid., p. 12.
87. Ibid., p. 20.
88. Christopher Hibbert, The Battle of Arnhem, (New York: MacMillan, 1962), p. 203.
89. Cornelis Bauer, The Battle of Arnhem, (New York: Stein and Day, 1967), p. 15.
90. Tugwell, p. 11.
91. Robert Eliot Urquhart, Arnhem, (New York: Norton, 1958), p. 202.
92. Keegan, p. 438.
93. Tugwell, p. 51.
94. James M. McPherson, Battle Cry of Freedom: The Civil War Era, (New York: Oxford University Press, 1988), pp. 534-535.
95. Ibid., p. 535.
96. Bruce Catton, The Civil War, (New York: American Heritage, 1982), p. 225.
97. McPherson, pp. 539-544.
98. Catton, p. 241.
99. McPherson, p. 544.
100. Ibid., p. 545.
101. Millet and Murray, p. 100.
102. Ibid.
103. Ibid., p. 101.
104. Schmitt and Vedeler, p. 258.
105. Millet and Murray, p. 100.
106. Ibid., p. 101.
107. Ibid., p. 103.
108. Schmitt and Vedeler, p. 258.

109. Ibid., p. 261.
110. Millet and Murray, p. 103.
111. Ibid.
112. Ibid., pp. 102-103.
113. Ibid., p. 103.
114. Schmitt and Vedeler, p. 264.
115. Millet and Murray, p. 102.
116. Martin Van Crevald, Supplying War: Logistics from Wallenstein to Patton, (New York: Cambridge University Press, 1986), p. 1.
117. David G. Chandler, The Illustrated Napoleon, (New York: Holt, 1973), p. 122.
118. Van Crevald, p. 62.
119. Ibid., p. 64.
120. George Nafziger. Napoleon's Invasion of Russia, (Novato, Ca: Presidio Press, 1988), p. 87.
121. M. de Fezenac, The Russian Campaign, 1812, (Athens, Ga: University of Georgia Press, 1970), p. 8.
122. Karl von Clausewitz, The Campaign of 1812 in Russia, (Westport, Conn: Greenwood Press, 1977), pp. 58-61.
123. Chandler, p. 124.
124. Clauswitz, The Campaign of 1812 in Russia. p. 192.
125. de Fezensac, p. 104.
126. Ibid., 128.
127. Douglas W. Craft, Operational Art in the Western Desert Theater of Operations 1940-43, (Fort Leavenworth, Kan: US Army Command and General Staff College, 1987), p. 2.
128. Ibid., p. 17.
129. David F. Tosch, German Operations in North Africa: A Case Study of the Link Between Operational Design and Sustainment, (Fort Leavenworth, Kan: US Army Command and General Staff College, 1983), p. 3.

130. Ibid., p. 6.
131. Ibid., pp. 10-11.
132. Van Crevald, p. 185.
133. Craft, p. 20.
134. Ibid., p. 26.
135. Tosch, p. 10.
136. Ibid., pp. 12-15.
137. Ibid., pp. 16-19.
138. Ibid., p. 23.
139. Ibid., p. 28.
140. Ibid., pp. 25-27.

## BIBLIOGRAPHY

- Bauer, Cornelis. The Battle of Arnhem. New York: Stein and Day, 1967.
- Beckett, Ian F.W. 'American Counterinsurgency'. Lecture. U.S. Naval War College, Newport, RI; 29 October 1992.
- Brodie, Bernard. War and Politics. New York: MacMillan, 1973.
- Brower, C.F. 'American Strategy in Vietnam, 1965-1968'. Lecture. U.S. Naval War College, Newport, RI; 2 November 1992.
- Carlson, Kenneth K. 'Operational Level or Operational Art?' Military Review, October 1987. pp. 50-54
- Catton, Bruce. The Civil War. New York: American Heritage, 1982.
- Chandler, D.G. The Illustrated Napoleon. New York: Holt, 1973.
- Clausewitz, Karl von. On War. ed. Michael Howard and Peter Paret. Princeton, NJ: Princeton University Press, 1976.
- \_\_\_\_\_. The Campaign of 1812 in Russia. Westport, Conn: Greenwood Press, 1977.
- Craft, D.W. Operational Art in the Western Desert Theater of Operations 1940-43. Fort Leavenworth, Kan: US Army Command and General Staff College, 1987.
- de Fezonac, M. The Russian Campaign, 1812. Athens, Ga: University of Georgia Press, 1970.
- Dupuy, E.R. and Trevor Dupuy. The Encyclopedia of Military History from 3500 BC to the Present. New York: Harper and Row, 1986.
- Eggengerger, D. An Encyclopedia of Battles: Accounts of Over 1560 Battles from 149 BC to the Present. New York: Dover, 1985.
- Errington, R.M. The Dawn of Empire: Rome's Rise to World Power. Ithaca, New York: Cornell University Press, 1972.
- Gardner, Llyod C. The Korean War. New York: New York Times Company, 1972.
- Hall, G.M. 'Culminating Points', Military Review, July 1989.
- Hibbert, C. The Battle of Arnhem. New York: MacMillan, 1962.
- Izzo, L.L. 'The Center of Gravity is not an Achilles Heel', Military Review, January 1988.
- Karnow, Stanley. Vietnam: A History. New York: Viking, 1983.

- Krepinevich, Andrew F. The Army and Vietnam. Baltimore, MD: The Johns Hopkins University Press, 1986.
- Keegan, John. The Second World War. New York: Penguin Books, 1989.
- Lee, Bradford A. "War in the Pacific", Lecture, U.S. Naval War College, Newport, RI: 8 October 1992.
- McPherson, James M. Battle Cry of Freedom: The Civil War Era. New York: Oxford University Press, 1988.
- Meehan, John F. "The Operational Trilogy." Parameters: Journal of the U.S. Army War College, Autumn 1986, pp. 9-18.
- Millet, Allan R. and W. Murray. Military Effectiveness. Boston: Unwyn Hyman, 1988.
- Nafziger, G. Napoleon's Invasion of Russia. Novato, Ca: Presidio Press, 1988.
- Polybius. On Roman Imperialism. Evelyn S. Shucksburg, translator. South Bend: Regnery Gateway, 1980.
- Ridgway, Mathew B. The Korean War. Garden City, NY: Doubleday, 1967.
- Runals, Stephen E. "A Different Approach." Military Review, October 1987, pp. 44-49.
- Ryan, Cornelius. A Bridge Too Far. New York: Simon and Shuster, 1974.
- Schmitt, Bernadotte and Vedeler, Harold C. The World in the Crucible. New York: Harper and Row, 1988.
- Sims, J. Arnhem Spearhead: A Private Soldier's Story. London: Imperial War Museum Press, 1978.
- Spector, Ronald H. Eagle Against the Sun: The American War with Japan. New York: Random House, 1985.
- Summers, Harry. Jr. On Strategy: The Vietnam War in Context. Carlisle Barracks, Pa: U.S. Army War College, 1983.
- Tosch, D.F. German Operations in North Africa: A Case Study of the Link Between Operational Design and Sustainment. Fort Leavenworth, Kan: US Army Command and General Staff College, 1983.
- Tugwell, M. Arnhem: A Case Study. London: Thornton Cox, 1975.
- Urquhart, Robert E. Arnhem. New York: Norton, 1958.
- US Department of the Army, Field Manual (FM) 100-5. Operations. Washington, DC: US Government Printing Office, May 1986.



Van Crevald, Martin. Supplying War: Logistics from Wallenstein to Patton.  
New York: Cambridge University Press. 1986.

Weigley, Russel F. The American Way of War: A History of United States  
Military Strategy and Policy. Bloomington, Ind: Indiana University  
Press, 1977.

Willmott, H.P. Empires in the Balance: Japanese and Allied Pacific  
Strategies to April 1942. Annapolis Md: Naval Institute Press, 1982.3